

Appl. No. 10/660,715
Amendment dated: February 29, 2008
Reply to OA of: November 29, 2007

REMARKS

Applicants have amended the specification and the claims to more particularly define the invention in view of the outstanding Official Action. The specification has been amended in accordance with the Examiner's requirement. Applicants have amended the claims to better define the invention and submit that the claims now present in the application are fully supported by the specification as originally filed. No new matter is introduced.

Applicants note that Applicants election without traverse of Group I (claims 1-9) in the reply filed on October 15, 2007 is acknowledged. Claims 10-22 are withdrawn from further consideration as being drawn to a non-elected invention. Accordingly, Applicants have withdrawn claims 10-22 from the present application.

Applicants further note that Applicants claim for priority in regard to Taiwan 092123728 filed August 28, 2003 is acknowledged as is receipt of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

The objection to the title of the invention because the title of the invention is not descriptive has been obviated in view of the amendment to the specification. Applicants have amended the title of the invention in accordance with the Examiner's helpful suggestion. Accordingly, it is most respectfully requested that this objection be withdrawn.

The objection to the specification for the reasons set forth on page 3 of the outstanding Official Action has been carefully considered but is most respectfully traversed in view of the amendment to the specification. Applicants have amended the specification in accordance with the Examiner's request and submit herewith a marked-up and clean version of the substitute specification. Applicants submit that the substitute specification contains no new matter. Accordingly, it is most respectfully requested that this objection be withdrawn.

Appl. No. 10/660,715
Amendment dated: February 29, 2008
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The objection to the abstract of the disclosure for the reasons set forth on page 4 of the outstanding Official Action has been obviated in view of the amendment to the abstract of the disclosure. Accordingly, it is most respectfully requested that this objection be withdrawn.

Applicants most respectfully submit that all of the claims now present in the application are in full compliance with 35 USC 112 and are clearly patentable over the references of record.

The rejection of claims 1-4 under 35 USC 103(a) as being unpatentable over Trueet in view of Hecker has been carefully considered but is most respectfully traversed in view of the amendments to the claims and the following comments.

The present invention discloses a vertical sublimation purification apparatus, comprising a sublimation channel body, a material rack, a heating evaporation device, a condensation device, an incubating device and a product scratching device. The vertical sublimation purification apparatus has high efficiency for the purification of materials having high melting point and low vapor pressure.

Trueet discloses a device for the separation of mixtures of solids and high boiling liquids, comprising "a tubular vessel having a closed and an open end; evacuating means sealing the open end; the closed end adapted to receive a mixture of at least two solids or high boiling liquids; means for heating the vessel to provide a thermal gradient along the length of the vessel or container and to cause the sublimation of the mixture; means to monitor the sublimation of the mixture by visual or optical means adapted to receive and translate the spectrum radiated from the sublimed materials along the length of the heated vessel or by physical means adapted to receive and retain the sublimed materials along the length of the heated vessel" (column 2, lines 45 to 57).

Hecker discloses a sublimation apparatus, comprising "...a charge boat removably supported within..." (column 6, lines 33 to 44)

The Examiner deems that Trueet discloses a vertical sublimation apparatus,

Appl. No. 10/660,715
Amendment dated: February 29, 2008
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comprising: a sublimation channel body (Trueet, Figure 4, 2); a heating evaporation device (Trueet, Figure 4, 3); a condensation device (Trueet, Figure 4,3); and an incubating device (Trueet, Figure 4, 3 and 6)... Therefore, it would have been obvious to one of ordinary skill in the art to modify the apparatus taught by Trueet with the material rack taught by Hecker in order to obtain an apparatus suitable for producing high pure products.

However, according to the specification of Trueet (column 3, lines 19 to 35) and Figure 4, 3, **Trueet only discloses a metal sleeve having two slits**, which permits the generation of a thermal gradient across the sublimer vessel, and **does not serve as a heating evaporation device, a condensation device and an incubating device respectively, while the present application uses individual member for these devices, as claimed in claim 1 of the present application**“ **A vertical sublimation apparatus, comprising: ... a heating evaporation device...; a condensation device...; a incubating device...**”. Compared to Trueet, the inventive step of the present application lies at the use of **separate design for heating evaporation device, condensation device and incubating device, which allows a better control on the temperature of each step of the purification process to increase the purity of the material**. Therefore, claims 1 is **not unpatentable** over Trueet. The same reason can be applied to claims 2-4. Accordingly, it is most respectfully requested that this rejection be withdrawn.

The rejection of claims 5-7 under 35 USC 103(a) as being unpatentable over Trueet in view of Hecker as applied to claim 1 above and further in view of Hogan has been carefully considered but is most respectfully traversed in view of the amendments to the claims and the following comments.

Hogan discloses an apparatus for desorption that utilizes enhancements to lessen the amount of entrained particles formed during desorption and for lowering the operating and capital costs associated with desorption equipment, having a plunger for cleaning the scrubber suction chamber. “The plunger’s outer surface may selectively

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have various configurations, such as saw teeth..." (Hogan, 0021)

However, with regard to the reasons for claim 1 as mentioned above, claims 5-7 are also **not unpatentable** over Trueet in view of Hecker or further in view of Hogan. Furthermore, the plunger disclosed in Hogan is used in an apparatus for removing water and hydrocarbons by vaporization from solid waste material through desorption (Hogan, 0004), which is a different technical field from the present application. Therefore, claims 5-7 are not unpatentable in view of Hogan. Accordingly, it is most respectfully requested that this rejection be withdrawn.

The rejection of claim 9 under 35 USC 103(a) as being unpatentable over Trueet in view of Hecker as applied to claim 1 above and further in view of Sandhu has been carefully considered but is most respectfully traversed in view of the amendments to the claims and the following comments.

Sandhu discloses an apparatus for subliming solid precursors, having "a gasket (or o-ring) seals the connection..." (column 4, lines 61 to 63).

However, with regard to the reasons for claim 1 mentioned above, claim 9 is also **not unpatentable** over Trueet in view of Hecker or further in view of Sandhu.

Finally, the sublimation apparatus disclosed in Trueet comprises only a tubular vessel; evacuating means; means for heating said vessel; and means to monitor the sublimation of mixture, which is not as described by the examiner "a sublimation channel body; a heating evaporation device...; a condensation device...; and an incubating device..." Trueet does not teach the technical features of the present invention, **the separate design for heating device, condensation device and incubating device**. Even if combining the above-mentioned citations, those skilled in the art cannot expect the feature. Therefore, the present invention does have inventive step.

In view of the above comments and further amendments to the specification and claims, favorable reconsideration and allowance of all the claims now present in

Appl. No. 10/660,715
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the application are most respectfully requested.

Respectfully submitted,
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